

Do NOT ENTER
EXCEPT UPON
RCE
RF 10/4/04

IN THE CLAIMS

Claims 1, 2, 5 and 15 are currently amended. Claims 3, 4, 6-14, 16, 17 and 19-27 were previously withdrawn. Claims 18, 28, 29 and 30 are carried forward.

1. (Currently Amended) A connection for sucker rods used in strings in petroleum wells to pump petroleum along production tubing from a down hole pump, comprising:

a pair of sucker rods, each having a pin end with a flat transverse end face and at least an adjacent male threaded section;

a coupler of known length between opposite end faces and having at least two interior female threaded sections receiving the male threaded sections of the pin ends, wherein the pin ends of the sucker rods include coupler end engagement members spaced apart from the end faces of the sucker rods and engageable against the coupler end faces; and

the pin ends of the sucker rods are dimensioned in length relative to the coupler length to provide prestressing compressional loading forces between opposing end faces of the pin ends when the male threaded sections are matingly [inserted] threaded to preselected penetrations in the coupler past engagement of the coupler end engagement members with the coupler ends.

2. (Currently Amended) A connection as set forth in claim 1 above, wherein the preselected penetration for each pin end is to a chosen displacement beyond insertion of the coupler end engagement members to the hand tight plane, whereby lengths of the pin end sections from the end faces are prestressed in compression and coextensive lengths of the coupler are prestressed in tension and the mating threads lock under prestress to inhibit relative movement.

3. (Withdrawn) A connection for sucker rods as set forth in claim 1 above, wherein the end faces are flat and are engaged with a torque of, for example, at least 450 ft. lbs. for 5/8" rod, 1100 ft. lbs. for 1-1/8" rod, and 1400 ft. lbs for 1-1/2" rod when the pin ends are engaged in the coupler.

4. (Withdrawn) A connection as set forth in claim 3 above, wherein the torque engagement for an exemplary sucker rod, such as a 1" slim-hole, is about at least 950 ft. lbs.